

# Interdisciplinary Journal of Partnership Studies

Volume 4

Issue 1 *Winter, Caring Democracy*

Article 4

3-2-2017

## The Original Partnership Societies: Evolved Propensities for Equality, Prosociality, and Peace

Douglas P. Fry

*University of Alabama at Birmingham*

Geneviève Souillac

*University of Alabama at Birmingham*

Follow this and additional works at: <http://pubs.lib.umn.edu/ijps>

### Recommended Citation

Fry, Douglas P. and Souillac, Geneviève (2017) "The Original Partnership Societies: Evolved Propensities for Equality, Prosociality, and Peace," *Interdisciplinary Journal of Partnership Studies*: Vol. 4: Iss. 1, Article 4. Available at: <http://pubs.lib.umn.edu/ijps/vol4/iss1/4>



This work is licensed under a [Creative Commons Attribution-Noncommercial 4.0 License](https://creativecommons.org/licenses/by-nc/4.0/)

The *Interdisciplinary Journal of Partnership Studies* is published by the University of Minnesota Libraries Publishing. Authors retain ownership of their articles, which are made available under the terms of a Creative Commons Attribution Noncommercial license (CC BY-NC 4.0).

 **LIBRARIES**  
PUBLISHING

## THE ORIGINAL PARTNERSHIP SOCIETIES: EVOLVED PROPENSITIES FOR EQUALITY, PROSOCIALITY, AND PEACE

Douglas P. Fry, PhD, and Geneviève Souillac, PhD

### Abstract

This article focuses on what nomadic forager research suggests about human nature and examines how this ancestral form of human social organization is fundamentally partnership-oriented. Taking mobile forager social organization into consideration is important to partnership studies because all humanity lived as mobile foragers until very recently. The material considered in this article stems from 1) individual forager ethnographies, 2) qualitative comparative forager studies, and 3) research based on systematically sampled forager traits. The findings show the pervasiveness of egalitarianism (including gender equality), socialization and social control mechanism geared toward promoting prosocial behaviors such as sharing and the caring for others, conflict avoidance and resolution mechanisms, and no inclination toward warfare in values or practice. Such patterns that cut across nomadic forager societies from around the world call into question a familiar narrative about the supposedly self-centered, warlike, and hoarding nature of humanity. Mobile forager studies support an alternative narrative that challenges assumptions about the “primitive versus civilized,” normative progress and modernity, and biased projections of innate depravity onto all humanity. The article concludes by proposing that our nomadic forager forbearers solved the challenges of survival over evolutionary time not by making war, developing slavery, or ranking people into domination hierarchies of ‘haves’ and ‘have nots’—social institutions with which we are all too familiar today—but rather, our mobile forager ancestors promoted egalitarianism, cooperation, caring and sharing as they developed ways to resolve disputes with a minimum of bloodshed and sidestepped the development of war.

**Keywords:** Human nature; prosocial behavior; gender equality; social equality; peace; war; critique of ethnocentric assumptions; nomadic foragers

Copyright: ©2017 Fry & Souillac. This is an open-access article distributed under the terms of the Creative Commons Noncommercial Attribution license (CC BY-NC 4.0), which allows for unrestricted noncommercial use, distribution, and adaptation, provided that the original author and source are credited.

Sahlins (2008) argues persuasively that we have been duped by a perversely inaccurate Western view of ourselves as sinfully self-centered, brutal, and corrupt. In

both science and society, the predominant evolutionary view has long assumed that competition, often expressed through physical violence, is the evolutionary norm (see Bekoff & Pierce, 2009; Fuentes, 2004; Nowak, 2011; Sussman & Cloninger, 2011).

However, we are now at the threshold of an evolutionary paradigm shift that fully recognizes how cooperation, sharing, caring, reconciliation, and restraint against violence also have strong evolutionary bases (de Waal 2009; Fry 2012; Fry et al. 2010; Fuentes 2004; Hrdy 2009; Verbeek 2008). For example, Nowak (2011) recently dubs human beings “supercooperators” and reviews multiple lines of evidence as to why cooperation actually represents the centerpiece on the human evolutionary table (see also Dyble et al., 2015). Obviously, humans possess the capacity for competition, cruelty, and violence, but a growing corpus of evidence shows that human nature is much less violent and selfish than has long been presumed under the traditional evolutionary paradigm (de Waal, 2009; Ferguson, 2011; Fry, 2006; Hart & Sussman, 2009, 2011; Nowak, 2011).

In this article, we will focus on what nomadic forager societies can tell us about human nature, and examine how this longstanding type of social organization tends to be partnership-oriented. Taking mobile forager data into account when considering human nature is important, because for most of our evolutionary past, humans lived and evolved in this form of social organization. Nomadic foraging is not merely a subsistence mode but also represents a pattern of sociality based on equality and cooperation. A careful examination of nomadic forager ethnography is centrally relevant to understanding our psychological and social evolutionary legacies—our *species-typical* behavior (Bicchieri, 1972; Bjorklund & Pellegrini, 2002; Marlowe, 2010).

In arguing that human nature bends toward partnership, we imply no biological determinism. To the contrary, we acknowledge the interplay of various influences on human behavior. “A macroscopic anthropological view reveals *Homo sapiens* to be an enormously flexible species” (Fry, 2006, p. 248). We agree with bio-social

interactional perspectives, such as Bjorklund and Pellegrini's (2002), who write, "All development is the product of the continuous and bidirectional interaction between structure and function at all levels of organization, making it impossible to specify 'genetic' versus 'environmental' effects" (p. 85). Consequently, we see no reason to attempt to partition out social causes as separate from biological ones as we examine nomadic forager social organization. As famed biologist Ernst Mayr (1961) convincingly pointed out more than half a century ago, proximate and ultimate explanations are not mutually exclusive—different types of explanation depends on what sort of questions one focuses upon. Animals, including humans, are born with genetically influenced propensities or dispositions that have been formed by natural selection over millions of years of evolution, but which always have been and continue to be affected by developmental and environmental experiences (Bjorklund & Pellegrini, 2002; Mayr, 1961). As Bjorklund and Pellegrini (2002) explain, dispositions "interact with all levels of the environment, producing, in most cases, species-typical patterns of development" (p. 43).

To foreshadow this article's main conclusion, forager studies suggest that humans are the beneficiaries of a long-term evolutionary inheritance favoring partnership-oriented behaviors and social orders, and that the nomadic forager data can contribute to our understanding of the foundations of human preferences for social equality, prosociality, and peaceful interaction. The body of cross-cultural mobile forager data is important to consider because it calls into question the familiar narrative about humanity as sinfully self-centered, brutal, and corrupt. Instead, the mobile forager data suggest a human partnership predilection for keeping the peace.

A partnership orientation is also reflected in mobile forager prosocial behavior, a preference for nonviolent conflict management over violence (although obviously violence sometimes occurs), and, importantly, a virtual absence of warfare at this level of social organization. On the basis of the extant nomadic forager data, it seems likely that humans have in fact evolved predilections for using restraint against lethal aggression; developed species-typical inclinations to empathize, care, share, and

cooperate in prosocial activities ranging from communal childcare to the quest for food; engaged in reciprocal exchanges of goods and services which resulted in net gains for the participants; favored nonviolent conflict resolution and avoidance over violence; employed social control mechanisms to maintain cooperation, equality, and peaceful social life; and respected the personal autonomy of the individual (Fry, 2006, 2012; Fry & Szala, 2013; Hrdy, 2009).

We will begin this article with a brief overview of mobile forager social organization. Rather than simply self-selecting ethnographic examples, the methodological approach examines recurring patterns across numerous mobile foraging societies, from different habitats and different continents, to gain insights about species-typical human nature (Fry, 2006, 2011; Fry & Souillac, 2013). We will make use of the worldwide literature on mobile forager societies, drawing upon comparative studies that sample nomadic forager societies from different cultural provinces (White, 1989). We will devote sections of the article to (1) egalitarian values and behaviors, including gender egalitarianism, (2) socialization and social control mechanisms geared toward promoting prosocial behaviors, (3) prosocial sharing and cooperation, (4) the ubiquity of conflict avoidance and dispute resolution mechanisms, and (5) the absence of war and other institutionalized forms of domination. We will conclude with a general discussion of the implications of nomadic forager research for partnership studies in the 21st century.

## **SALIENT FEATURES OF MOBILE FORAGER SOCIETIES**

Nomadic foragers—also called nomadic hunter-gatherers—are ethnographically described for all major world regions. Such societies still exist, but extant foragers have become increasingly rare over the last centuries and decades as they have faced onslaughts in the form of land grabs, extermination campaigns, epidemics, ecological destruction of their habitats, and other crises (e.g., Fry & Söderberg, 2014; Guenther, 2014; Headland, 1989; Hill & Hurtado, 1996; Hill, Hurtado, & Walker, 2007; Tonkinson, 2013).

Modern humans possess a legacy of adaptations acquired over many millennia of evolution. Until about 12,500 years ago, all humans and their ancestors lived as nomadic foragers. In other words, for over 99 percent of the two million years or so that the genus *Homo* has existed, nomadic foraging has constituted the only form of social organization. Consequently, when the goal is to gain insights about human nature, it is highly relevant to consider the salient characteristics of nomadic forager societies. As Bicchieri (1972) expresses, “For more than 99 percent of the approximately two million years since the emergence of a recognizable human animal, man has been a hunter and gatherer. ...Questions concerning territorialism, the handling of aggression, social control, property, leadership, the use of space, and many other dimensions are particularly significant in these contexts” (pp. iii, iv-v).

Mobile forager bands are small in size, politically egalitarian, lack clear-cut leadership, are nomadic or semi-nomadic, and engage in foraging as an approach to subsistence (Service, 1966; 197). The data to be discussed in this article stem from 1) individual forager ethnographies (e.g., Gardner, 2000; Holmberg, 1969; Lee, 1993; Lips, 1947; Tonkinson, 1978), 2) qualitatively comparative foragers studies (e.g., Kelly, 1995; Knaft, 1991; Service, 1966; Woodburn, 1982), and 3) studies that systematically sample nomadic forager societies (e.g., Fry, 2006; Fry & Söderberg, 2013a, 2013b; Knaft, 1991; Marlowe, 2010; Söderberg & Fry, 2017).

In our own comparative work, we have drawn on the *Ethnographic Atlas* compiled by Murdock (1967, 1981) that contains coded data on cultural features such as subsistence mode, settlement pattern, and social organization. Regarding sample derivation, the *Standard Cross-Cultural Sample* (SCCS) represents 186 cultural provinces worldwide, and has been created to minimize Galton’s problem of non-independent sampling (White, 1989). In our cross-cultural forager studies, we operationally define nomadic foragers as societies obtaining at most five percent of their subsistence requirements from agriculture and animal husbandry that also are nomadic or semi-nomadic (and lack horses), as recorded in the *Ethnographic Atlas*

cultural codes (Murdock, 1967, 1981). Applying these operational criteria to the SCCS yields a sample of 21 mobile forager societies (Fry, 2006). Additionally, an examination of the ethnographic codes reveals that these 21 societies also lack class or wealth distinctions. In other words, they share the partnership feature of socially egalitarianism (for further sampling and methodological details, see Fry, 2006; Fry & Söderberg, 2013b). Using the ethnographic codes of previous researchers and using set criteria from the *Ethnographic Atlas* as the basis for selecting from the SCCS a subsample of forager societies are methodological strong points of this approach.

Whether nomadic foragers are from North America, South America, Africa, Asia, Australia, or the Arctic, certain typical patterns of lifeway can be noted in ethnographic and comparative studies. Drawing from numerous sources (e.g., Binford, 2001; Boehm, 1999; Kelly, 1995; Knauff, 1991; Leacock, 1978; Lee & DeVore, 1968; Marlowe, 2010), we can summarize the recurring demographic and social features reported for dozens of mobile forager societies worldwide (Fry, 2006; see also Figure 1).

Nearly universal features of nomadic foragers include relatively low population densities, small band size (typically between 25 to 50 members), mobility, flexibility and fluctuations in group composition, concentration-dispersion patterns, interconnections among bands (especially among those that speak the same or similar languages), social emphasis on sharing and cooperation, high values placed on individual autonomy, bilateral systems of descent that emphasize connections both to maternal and paternal relatives, minimal leadership within groups, no overarching authority among groups, high levels of egalitarianism in both the ethos and as manifested in social relations, high levels of gender egalitarianism, decision-making by consensus, sexual division of labor, hunting as primarily (but not exclusively) a male activity (with hunting large game being a male activity) and gathering as primarily (but not exclusively) a female activity, minimal material property, minimal private ownership of resources, loosely defined territorial ranges, patterns of

reciprocal exchange among individuals within and between groups, a tendency to find spouses in other groups, the personal nature of disputes (e.g., involving sexual jealousy), group fission and/or interpersonal avoidance as a response to conflict (especially serious conflict), a devaluation of physical aggression, lack of warrior values, exertion of social control via gossip, ridicule, withdrawal of support, and in extreme cases, ostracism and execution. (Fry, 2006, p. 239).

Small, mobile bands (median group = 26)  
 Band membership flexible and changing over time; fission-fusion pattern typical  
 Camp movement variable; one comparative study found an average of 8.5 camps/year  
 Subsist mostly on gathering vegetable foods and hunting (and sometimes on fishing)  
 Egalitarian and nonhierarchical in ethos and behavior  
 Reciprocal sharing and cooperation within and across bands  
 Bilateral descent (i.e., through both mother's and father's lines)  
 Multi-local residence pattern typical  
 Practice social control via socialization of the young, criticism, withdrawal of support, ostracism, and other techniques  
 Possess few material possessions  
 Lack martial values and tend to be nonwarring  
 Practice avoidance as a major form of conflict management

Figure 1. Typical Features of Mobile Forager Social Organization.

(Sources: Binford 2001; Fry & Söderberg 2013a, 2013b; Kelly 1995; Marlowe 2010; Service 1966).

Because these features tend to recur across widely disparate mobile forager societies, they can be seen to reflect a form of social organization that differs in many significant ways from other more recently developed types of human social organization such as chiefdoms, kingdoms, and states that are sedentary, hierarchical, non-egalitarian, patriarchal, warlike, and so forth. We will focus now on how mobile forager social organization reflects a partnership orientation to social life, which is heralded by egalitarianism and respect for the autonomy of the individual, caring and cooperating, and a paucity of war.



## EGALITARIAN NOMADIC FORAGERS

Nomadic forager data suggest a human predilection toward equality, including gender equality, in ethos and action. Equality is reflected in the autonomy of each individual to make personal choices, the equity of reciprocal exchange, the sharing of decision-making processes across the society, and the lack of exploitation and coercion by some over others. Based on an extensive survey of the ethnographic literature on mobile forager societies, Boehm (1999) concludes that nomadic foragers are “fiercely egalitarian.” He provides various illustrations as to how members of a mobile forager society will band together to resist any attempts at domination or bullying.

“Egalitarian foragers uniformly eschew strong authoritarian leadership,” writes Boehm (p. 208). Woodburn (1982) had earlier reached a similar conclusion based both on his own research among the Hadza people of east Africa and on his knowledge of other nomadic forager societies. Woodburn states, “There are either no leaders at all or leaders who are very elaborately constrained to prevent them from exercising authority or using their influence to acquire wealth or prestige” (p. 444).

This widespread feature of nomadic foragers is illustrated, for example, when Cooper (1946) explains that among the Ona of Tierra del Fuego, “no man recognized authoritative leadership or accepted orders from any other” (p. 116). Leacock (1978) who studied the Montagnais-Naskapi of Canada’s Labrador Peninsula realized that it is difficult for Westerners, who are so accustomed to the chains of command in their own hierarchical societies, to conceptualize the dynamic grip that egalitarianism holds on nomadic forager social life. Leacock (1978) expresses, “What is hard to grasp about the structure of the egalitarian band is that leadership as we conceive it is not merely ‘weak’ or ‘incipient,’ as is commonly stated, but irrelevant” (p. 249).

When ethnographers emphasize time and again the egalitarian nature of mobile foragers, they are not forgetting the women. Whereas women and men have differing sex roles and reflect gender-based division of labor within their nomadic forager

societies, typically neither sex dominates the other. In other words, this crucial dimension of partnership is well-illustrated in most nomadic forager societies. Karen Endicott (1999) summarizes that “Rather than assigning all authority in political, economic, or religious matters to one gender or the other, hunter-gatherers tend to leave decision-making about men’s work and areas of expertise to men, and about women’s work and areas of expertise to women” (p. 415). This pattern holds across mobile foraging societies generally, although interestingly, gender egalitarianism is not as fully manifested in Aboriginal Australia, where men take control of the sacred and spiritual realm.

As an overall pattern, women living in mobile forager contexts have great freedom to leave a husband, engage in extramarital affairs, and participate in group decision-making. One indicator of the gender egalitarian nature of nomadic forager social organization is that bilateral descent is typical, meaning that lines of descent are equally reckoned through both parental lines, as opposed to favoring, for instance, patrilineal descent. Recent research also shows the rough equality between men and women regarding residency decisions (Dyble et al., 2015; Fry, 2006; Knauff, 1991). Ethnographic data and computer modeling provide evidence “that multilocality, rather than patrilocal, is the norm among mobile hunter-gatherers” (Dyble et al. 2015, p. 798). Dyble and his colleagues state that the transition to agriculture and pastoralism, beginning at the earliest about 10,000 years ago, contributed to the rise of gender inequality, a major change from the long-standing nomadic forager pattern of gender equality. “Once heritable resources, such as land and livestock, became important determinants of reproductive success, sex-biased inheritance and lineal systems started to rise, leading to wealth and sex inequalities” (Dyble et al., 2015, p. 798). In sum, there are a variety of social and behavior markers ranging from decision-making and mate selection to multilocal residence patterns and the bilateral calculation of descent that show mobile forager bands to have high levels of gender equality.

## PROTECTION OF EQUALITY AND THE SOCIAL CONTROL OF DEVIANCE

In forager bands, no one is allowed to become a dictator. The members of the band defend their autonomy and their expectations and ethos of social equality. Prosociality, nonviolence, caring, and sharing prevail. The Yahgan believe that a central purpose of a person's life is to become a "good and useful human being" (Gusinde, 1937, p. 531). This principle may be generalized to other nomadic forager societies. Most mobile forager societies value generosity, humility and respectful behavior, and nonaggressiveness over physical confrontation (Boehm 1999, p. 71; Fry, 2006; Service, 1966, p. 51; Woodburn, 1982, p. 445). Some mobile foragers have explicit nonviolent norms and values (e.g., Gardner, 2000, 2004; Endicott & Endicott, 2008). When confronted with norm violations or deviance, mobile foragers use a variety of methods to correct the behavior.

To take an example, a Mbuti hunter from central Africa named Cephu deliberately flouted the rules of cooperative hunting in an attempt to slyly usurp more than his fair share of meat (Turnbull, 1961). Once Cephu's trickery was exposed, his campmates mocked, insulted, criticized, lectured, and laughed at him before finally suggesting that he and his family could leave the band. This would have been a disastrous punishment for Cephu and his family because the small splinter group could not have hunted effectively. When faced with the onslaught of criticism and ridicule, including the threat of ostracism, Cephu dropped his initially defensive stance and began to apologize profusely. He gave-up the ill-acquired game to the rest of the band, leaving his own family without any meat for dinner. The campmates were mollified and Cephu was brought back into the fold.

A similar example of the delivery of justice comes from the Western Desert of Australia. A young Mardu man named Jardi had sexual affairs with women from another band who were inappropriate partners according to the rules of kinship (Tonkinson, 2004). In several public meetings, the incorrectness of his behavior was pointed out to him. Finally, Jardi gave up attempting to justify his sexual misconduct

and walked to an open area, thus signaling that he was ready to receive his punishment. Jardi's eldest brother and several other young men, who by the rules of marriage were potential husbands to the young women whom Jardi had seduced, came one by one to deliver a stab with a spear to Jardi's thigh or a blow with a club to his upper body. The intention was to correct Jardi's misbehavior, not to kill him; spear jab wounds to the thigh may bleed profusely but are rarely life-threatening. Jardi's receipt of this physical punishment ended the matter. He henceforth sought out sex partners only from the appropriate kinship categories.

We suggest that three key social processes reinforce prosocial partnership patterns of interaction within mobile forager societies (Fry & Souillac, 2013; Söderberg & Fry, 2017). The first key process is socialization for prosocial partnership behavior, which means creating children who care about others as enacted through generous sharing, helping, and respecting the equality and autonomy of others (Fry & Souillac, 2013). During the course of development, mobile forager children also typically learn that walking away from conflict is preferred over engaging in physical aggression as they come to understand the correct ways to behave in their particular society. Prosocial socialization and enculturation usually work, as children naturally learn to follow the norms of their society and to resolve conflicts through approaches favored in their culture. For instance, Mardu children take on the desired values and traits of self-restraint, compassion, generosity, and helpfulness (Tonkinson, 1978).

A second process that nomadic foragers employ to promote prosociality and discourage deviance is social control mechanisms. As illustrated in the cases of Cephu and Jardi, social control measures can successfully correct errant behavior. Members of mobile forager societies ridicule, criticize, tease, withhold support, and reprimand individuals who are overly aggressive, pushy, or egoistic. Among the Yahgan, for instance, society's response to a deviant is to "ignore him and obviously avoid associating with him; they cast aspersions on him and warn him about his delinquency. They give him no rest and even pursue him if he is a murderer or adulterer. In such a way the society takes part in the prosecution of punishment for a

crime” (Gusinde, 1937, p. 1031). At the same time, nomadic foragers praise and reward prosocial actions. Balikci (1970) points out that among the Netsilik Inuit, if a man known for his generosity should fall ill, gifts of food flow into his household. Among mobile foragers, prosocial actions are informally rewarded, since “there are equally positive forces toward social behavior, including the esteem of one’s age mates and elders, the affection of children, the contentment of a full stomach, and, perhaps above all, the belief in the personal benevolence of the forest” (Turnbull, 1965, p. 216).

Third, in the rare cases where neither socialization of the young nor social control of the adult succeeds, the members of nomadic forager society may execute directly or else exclude, exile, expel, or excommunicate an offender deemed by society to be un-redeemable. Lips (1947) explains that among the Naskapi, ostracism is the likely fate of “the habitual peace-breaker, the constant trouble-maker, the incorrigible thief, the chronic quarreler” (p. 469). Recidivist killers sometimes will be executed with the approval of society (Boehm, 1999; Fry, 2006, 2011; Lee, 1993; Söderberg & Fry, 2017). Among the Ingalik, when warnings to a deviant had no effect, he “was hung from a branch of a tree without his clothes and left to freeze” (Osgood, 1958, p. 53). As a counter-point to such executions, we should also note that some mobile forager peoples have created nearly homicide-free social worlds (e.g., Fry, 2006; Gardner, 2000, 2004; Endicott & Endicott, 2008; Holmberg, 1969; Turnbull, 1961). Clearly, rates of lethal behavior—whether homicides, group sanctioned executions, or killings of other sorts—vary cross-culturally among mobile forager societies (Fry, 2006; Fry & Söderberg, 2013a, 2013b).

## **PROSOCIAL PREDILECTIONS: SHARING**

In band social life, the reciprocating of good deeds prevails. There are many examples of cooperation in the quest for food. The sharing of resources such as water holes or periodic food bounties across group lines parallels the ubiquitous within-group sharing

that is regularly described for nomadic foragers. Uniformly, mobile foragers share meat (e.g., Apicella et al., 2012; Birdsell, 1971; Boehm, 1999; Clastres, 1972; Dyble et al, 2015; Fry, 2006 and references therein; Gusinde, 1937; Knauft, 1991; Leacock, 1954; Lee, 1993). For instance, the Guayaki of South America possess a food taboo that promotes meat-sharing: A man should not consume the meat of any animals he personally has killed (Clastres, 1972, p. 169). This social rule reinforces the fact that each hunter and his family are interdependent with other hunters. To survive, each family must share reciprocally with other members of society; therefore, each hunter gives his game to others to consume and in turn receives meat from fellow hunters.

Leacock (1954) describes the importance of reciprocal sharing of meat among Montagnais hunter-gatherers of North America: “Owing to the uncertainty of the hunt, several families were necessarily dependent upon each other, thus providing [in Steward’s words], ‘a kind of subsistence insurance or greater security than individual families could achieve’” (p. 7). Lee (1993) paints a similar picture, noting the importance of forming and maintaining networks of reciprocal exchange for the African Ju/’hoansi: “If one has good relations with in-laws at different waterholes, one will never go hungry” (p. 88).

Reciprocal meat-sharing is thus ubiquitous in nomadic forager social systems. Fry (2006) suggests that sharing among persons from different groups is facilitated by at least three factors. First, nomadic foragers are well-accustomed to the ethos and rules for sharing that operate within a camp, so it is an easy extension of the values and norms of sharing to persons arriving from other locations. Sharing with others constitutes proper human conduct, and generosity is regularly mentioned in ethnographies as a desirable human characteristic. Forager bands are more ephemeral than they are enduring; malleable group composition fits a fission-fusion pattern as membership shifts over time. Therefore, sharing and engaging in reciprocal exchanges with persons living at some distance is congruent with nomadic forager worldview (Apicella et al., 2012; Lee, 1993; Tonkinson, 1978, 2004).

As a second facilitator of sharing across group lines, Fry (2006) suggests that nomadic foragers clearly understand the benefits of reciprocal sharing and mutual assistance-giving. Among groups, access to resources such as waterholes is routinely granted on a reciprocal basis (Myers, 1982; Wolfe, 2001). The benefits of reciprocal sharing and assistance-offering over time are obvious to mobile foragers.

A third factor envisioned to facilitate intergroup sharing is that, irrespective of camp membership at a given point in time, people moving across a wide landscape are interconnected through ties of kinship, friendship, marriage, and gift exchange (e.g., Apicella et al., 2012; Birdsell, 1971; Lee, 1993; Tonkinson, 2004; Wolf, 2001). Thus sharing and social exchange networks cross-cut local camp membership, including at times, persons from different language groups (Birdsell, 1971, p. 349, 357). The fluctuating nature of band composition also can tilt decisions toward reciprocal sharing instead of toward hostile competition over resources (Fry & Söderberg, 2013b; see also Fry, 2006; Myers, 1982). Dyble et al. (2015) speculate that over the course of human evolution, “co-residence with unrelated individuals set the selection environment for the evolution of hypercooperation and prosociality. ...This social system may have allowed hunter-gatherers to extend their social networks, buffering environmental risk and promoting levels of information exchange required for cumulative culture” (p. 798).

## **DEALING WITH CONFLICT**

We have noted that mobile foragers live in bands whose composition varies as people transfer regularly among groups. Nomadic foragers have few material possessions and tend to be widely dispersed. The typical mobile forager response to conflict is simply to walk away (Fry & Söderberg, 2013b). Lacking authoritative leadership, egalitarian nomadic band societies manage to deal with much conflict through avoidance, discussion, group meetings, contests, and in other nonviolent or aggression-limiting ways (Boehm, 1999; Fry, 2006, 2011; Söderberg & Fry, 2017). Disputes tend to be personal, such as between two men due to jealousy or an insult (Fry, 2006; Service,

1966). The most common reasons for homicide are over a woman, sexual jealousy, or to avenge the death of a close family member (Fry, 2011). Another reason for killing, as described earlier, is when overly-violent persons or serious deviants, if not ostracized, are executed. (Balikci, 1970; Boehm, 1999; Fry, 2011; Lee, 1993).

Most conflicts, however, are handled non-lethally. For instance, as reflected in the film *The Meat Fight* on Ju/'hoansi foragers of the Kalahari Desert, the people from different camps solve a dispute through discussion over who has the right to distribute meat from a slain animal (Marshall, 2009). No physical aggression takes place. The dispute is resolved verbally as the people make reference to the correct social rules for dividing game.

The Paliyan of India, in accordance with their ethos of respect and nonviolence, do not feud or war, rarely commit homicide, and typically separate in response to even minor conflict (Gardner, 2000, 2004). Thus avoidance is the Paliyan option of choice, as is typical of mobile foragers generally (Fry, 2006). If a dispute persists among the Paliyan, the members of a band may convene a conflict resolution assembly called a *kuttam* and attempt to mediate and resolve the problem (Gardner, 2004).

An observation by Gusinde (1937) about mobile foragers in Tierra del Fuego is applicable to various other mobile forager societies as well. Gusinde explains, “Actually, conditions in simple social organization of our Fuegians are more orderly, principled, and peaceful than many Europeans might believe, although they neither have a police force and courts of justice nor are under any leadership of chiefs. ...They want to make each of their children ‘a good and useful human being’” (p. 1031, p. 531).

## NON-WARLIKE NOMADIC FORAGERS

Although the mobile forager data support a clear conclusion that this form of social organization is not conducive to war, nonetheless, as Fry and Söderberg (2014)



observe, “A conflagration is raging over whether nomadic foragers are peaceful or warlike” (p. 256). This issue is being debated in academia (Bowles, 2009; Endicott, 2014; Fry and Söderberg, 2013a; Guenther, 2014; Lee, 2014; Wrangham & Glowacki, 2012) as well as presented in the popular press (Gat, 2006; Pinker, 2011; Wrangham & Peterson, 1996). Why is the question of forager warlikeness/peacefulness getting this attention? Fry and Söderberg (2014) suggest that “nomadic forager data are seen as crucial or at least relevant to much larger issues: How old is war? Are humans inherently warlike? Is war an evolved human trait? Can war, ironically, be credited with the development of altruism and cooperation?” (p. 256)

In an attempt address such questions using nomadic forager data, Fry and Söderberg (2013a) decided to investigate lethal violence of all types without labeling, on an *a priori* basis, particular killing events under categories such as war, feud, homicide, or manslaughter. Instead, these authors examined in detail the features of all cases of lethal aggression reported for a sample of 21 mobile forager societies selected via a systematic methodology from the SCCS (Fry & Söderberg 2013a, 2013b, 2014).

The key findings were that for the 21 mobile forager societies, a total of 148 lethal events of various types were reported in the primary source ethnographies that were written as early as the 1600s but in most case in the 19<sup>th</sup> and 20<sup>th</sup> centuries (White, 1989). All 148 lethal events were analyzed in the study. The mean number of lethal events per society was 7.05 (SD = 14.64), with a range from zero to 69. At one end of this distribution, three societies had no lethal events reported, whereas at the other extreme, one society, the Tiwi of Australia, provided 69 lethal events of the 148. The distribution was skewed, as reflected by the fact that the next highest society had 15 lethal events and the third highest had 10. In other words, the Tiwi, with almost half (47 percent) of the lethal events for the entire sample, was an outlier. If the Tiwi data are removed, the mean number of lethal events per society for the remaining 20 societies is nearly cut in half, with the new mean being 3.95, down from 7.05.

If we think of warfare as *lethal aggression between different communities*, then the Fry and Söderberg (2013a) findings contradict in various ways the presumption that war is typical of nomadic foraging societies. First, 55 percent of the lethal events involved only one person killing only one person. This does not accord with typical definitions of war as intergroup aggression. Another 23 percent of the lethal instances involved more than one person killing only one person. In other words, 78 percent of the lethal acts involved only one victim. Second, at the very least, 36 percent of the killers and victims were living within the same group as neighbors, fathers and sons, husbands and wives, and so forth. Killing within the same group is not war. Third, an examination of the motivations for lethal aggression revealed that interpersonal reasons were more typical than intergroup causes, whether or not killers and victims were from the same or different groups. Interpersonal jealousy, insults, and revenge were common reasons for killings. However, in a typical lethal scenario wherein a wife leaves her husband for another man and then someone in the love triangle ends up dead, this is not warfare. Similarly, the occasional cases of starvation cannibalism, hunting accidents, or within-group executions do not qualify as examples of warfare. Overall, Fry and Söderberg (2013a) conclude that most lethal aggression cases among the mobile forager societies in the SCCS-derived sample are homicides, a few others are feud, and only a minority could be considered war.

Returning to the questions posed at the beginning of this section, if mobile foragers can offer insights about the ancestral past or about human nature, the findings suggest that war is neither an intrinsic part of human heredity nor human destiny. A paucity of warfare at the nomadic forager level of social organization is not surprising for a number of reasons (Fry, 2006; Gardner, 2004; Kelly, 1995; Knauft, 1991; Meggitt, 1965; Tonkinson, 2004). At this level of social organization, there is nothing of value to plunder; groups are interconnected by cross-cutting ties of kinship, exchange, and friendship; population density is very low; and military leaders are lacking (Fry & Söderberg 2013a, 2013b, 2014). Additionally, the motivations for keeping the peace also can be seen as important since people in a partnership-

oriented mobile forager world depend on each other for assistance, trade, marriage partners, and access to critical resources. As Lee and DeVore (1968) point out:

Local groups as groups do not ordinarily maintain exclusive rights to resources. Variations in food supply from region to region and from year to year create a fluid situation that can best be met by flexible organizations that allow people to move from one area to another. The visiting patterns create intergroup obligations, so that the hosts in one season become the guests in another. We think that reciprocal access to food resources would rank as equal in importance with exchange of spouses as a means of communication between groups. (Lee & DeVore, 1968, p. 12).

Wolf (2001) expands on this idea that nomadic foragers, especially those living in harsh environments, favor friendships over animosity.

To survive, a person periodically needs to gain access to resources in other locations, and he gains such access through ties of kinship, marriage, friendship, and exchange. ...There are no surpluses to maintain a permanent leisure class, and no mechanisms other than those of kinship and friendship to gain access to other people's services. ...What we can do is note the possible correspondence of resource scarcity and scatter and a tendency to expand interpersonal ties to reduce the risks and increase survival chances. Under such circumstances there may well exist a motivation to limit violence, since it is unwise to make enemies of potential friends and allies. (Wolf, 2001, p. 196).

## **DISCUSSION AND CONCLUSION**

Societies residing toward the partnership end of the partnership-to-domination continuum exhibit high levels of egalitarianism generally and gender egalitarianism specifically; prosocial values, practices, and institutions that promote human well-being; strong prosocial orientations consisting of cooperation geared toward the social

good, caring, compassion, and consideration for the needs of others; and a non-acceptance of exploitation, abuse, and extreme violence; while at the same time maintaining a decided preference for nonviolent conflict resolution, and nonviolence in daily life (Eisler, 1988, 1995; Eisler & Fry, forthcoming). The empirical data presented in this article suggest that mobile foragers are partnership-oriented societies - in fact, the first kind of human partnership societies.

Nomadic foraging is more than merely a subsistence mode. It was the lifeway for all humanity until recent millennia. Nomadic foraging is the original form of human social organization, and as such represents social circumstances most similar to those under which our species has evolved. If we wish to glean insights about human nature and human potentials, a good point of departure is to consider the social patterns that recur across mobile forager societies. Taking this approach, there is a solid basis for seeing human and gender equality, prosociality, and a favoring of peaceful exchange, cooperation, and interaction as long-standing partnership elements that have developed and endured across human evolutionary time.

The importance of mobile forager patterns has been under-appreciated and under-explored in several spheres. First, the recurring elements such as egalitarianism; valuing of generosity; restraint on aggression; prosocial cooperation for the social good; reciprocal exchange of favors, assistance, and gifts; the collective concern over upstarts and deviants; and an appreciation of interdependence among people suggest that humans have evolved propensities for partnership-oriented behaviors and values. This wealth of mobile forager data can shed light on human uniformities, contextualize human needs, and help to promote human well-being.

Forager studies also challenge assumptions about human nature as greed-driven, primarily self-centered, and naturally inclined toward raw competition and violence. As Sahlins (2008) points out, “Time and again for more than two millennia the people we call ‘Western’ have been haunted by the specter of their own inner being: An apparition of human nature so avaricious and contentious that, unless it is somehow

governed, it will reduce society to anarchy” (p. 1). The data on nomadic foragers provide a wealth of information that question this view of humanity, but the forager data have been regularly ignored, selectively discussed, or down-right manipulated in favor of demonic views of human nature (Bowles, 2009; Pinker, 2011; Wrangham & Glowacki, 2012).

Souillac and Fry (2016) point out that this view of humanity as demonically violent is non-reflective, biased, and based on simple narratives that depart dramatically from the rich complexity of the anthropological data that we have been reviewing here. For example, the simple narrative of a shockingly violent past and an indigenous world staffed by savage primitive peoples ignores that (1) a wealth of conflict resolution mechanisms exist, which mobile foragers and other indigenous peoples successfully apply, (2) resources are shared more often than defended in the nomadic forager world, (3) core values reinforce generosity rather than greed, and (4) instead of living in bounded, competitive groups, nomadic forager social organization actually links individuals across networks encompassing malleable and thus temporary groups with permeable social boundaries.

So, one simple narrative that is contradicted by a plethora of mobile forager data is that humanity is inherently warlike. Another distortion is the dichotomous narrative of the “civilized us” versus the “uncivilized them” (Souillac & Fry, 2016). For example, Pinker (2011) uncritically buys into this ethnocentric tale wherein modern civilization triumphs over pre-state societies and a violent past. In fact, a counter-argument could be made that the presumed “uncivilized” mobile forager existence, with a strong partnership focus, is actually more “civilized” than an array of domination societies with their gross inequalities, subjugation of women and minorities, insensitivity to basic human needs, exploitation of the many by the elite few, institutions of structural violence, and acceptance of raw brutality as manifested in human trafficking, slavery, and the habitual waging of war. Mobile foragers simply don’t engage in such types of arguably *uncivilized* behavior.

Breaking out of the ethnocentric dichotomization of primitive versus civilized allows the acknowledgement that indigenous conflict management offers a set of nonviolent and effective procedures for resolving differences, restoring the peace, and reconciling disputants. We saw that social norms and values helped the Ju/'hoansi resolve a dispute without any violence in *The Meat Fight* film (Marshall, 2009). Other examples of well-oiled conflict resolution mechanisms in mobile forager societies are when the Netsilik Inuit engage in nonviolent song duels, the Siriono of South America wrestle without using weapons or punching with their fists, and the Paliyan air a dispute in a *kuttam* mediation session (Balikci, 1970; Holmberg, 1969; Gardner, 2000, 2004). If we move our thinking beyond the ethnocentric narrative that *they* are primitive but *we* are civilized, each of the forgoing indigenous conflict management processes, and many more, could be viewed, with greater cultural relativism, as “highly civilized,” since these approaches follow set procedures, effectively deliver justice, mend bruised relationships, and safeguard community harmony.

When nomadic foragers are faced with deviance or antisocial behavior, in all likelihood they first attempt to reform, rehabilitate, and reintegrate any recalcitrant individuals back into society. We saw this with the case of Cephu, the Mbuti hunter who realized the errors of his ways, ate humble pie, and was reintegrated into the group, and also when the young Mardu man named Jardi was lectured by the elders and then punished by his peers for his inappropriate seductions of young women from a neighboring group that violated kinship rules (Turnbull, 1961; Tonkinson, 1978, 2004).

In conclusion, the data on this ancestral form of human social organization not only show that partnership-oriented societies are possible but also offer support for the theoretical proposition that humans have natural predilections toward egalitarianism, freedom, justice, caring, sharing, and befriending. This leads to a new empirically-based narrative: Given the choice, humans favor equality and self-determination over dominance and exploitation. The forager data are congruent with the recurrent historical struggles for justice and rights, equality, and peace, from Gandhi's salt

march and Martin Luther King's civil rights leadership to today's international women's rights movement and the Occupy movement. The many social movements worldwide pushing for regime change, social justice, liberty, human rights, democratic representation, and equality may reflect basic human desires for democracy, self-determination, and prosociality that would seem to date at least as far back as our nomadic foraging past.

In the new narrative, mobile forager studies can offer valuable insights and help to challenge assumptions about progress, the primitive versus civilized dichotomy, and biased projections of innate depravity onto all humanity. Nomadic forager research may even deserve a special status in presenting a path that links survival challenges of the evolutionary past with those currently faced by humanity (Souillac, 2012). Our nomadic forager forbearers solved the challenges of survival not by making war, developing slavery, or ranking people into domination hierarchies of 'haves' and 'have nots.' On the contrary, our mobile forager ancestors defended egalitarianism against any would-be usurpers of equality and autonomy; they cooperated, assisted, cared, and shared; they developed ways to resolve disputes with a minimum of bloodshed; and they instituted mechanism for conflict prevention and resolution. We can learn from this alternative empirically-based narrative that violence, coercion, exploitation, and abuse by some peoples over others is neither ancient nor inevitable.

In the context of millennia of human history and prehistory, the domination-steeped social script is recent. An alternative data-supported narrative proposes that humans originated within a partnership-based social world, which served humanity well, and if we choose to do so, we can re-invent prosocial partnership paths today. Indeed, the partnership way, applied on a global scale, presents the only viable road to human survival and well-being on our interdependent planet, where humanity will either bind together as partners working to assure our common future or else face dim prospects indeed.

## References

- Apicella, C., Marlowe, F., Fowler, J., & Christakis, N. (2012). Social networks and cooperation in hunter-gatherers. *Nature*, 481, 497-502.
- Balikci, A. (1970). *The Netsilik Eskimo*. Garden City, NY: The Natural History Press.
- Bekoff, M., & Pierce, J. (2009). *Wild justice: The moral lives of animals*. Chicago: University of Chicago Press.
- Bicchieri, M. (Ed.) (1972). *Hunters and gatherers today*. Prospect Heights, IL: Waveland.
- Binford, L. (2001). *Constructing Frames of Reference*. Berkeley: University of California Press.
- Birdsell, J. (1971). Australia: Ecology, spacing mechanisms and adaptive behaviour in Aboriginal land tenure (pp. 334-361). In R. Crocombe (Ed.), *Land Tenure in the Pacific*. New York: Oxford University Press.
- Bjorklund, D. F., & Pellegrini, A. D. (2002). *The origins of human nature: Evolutionary developmental psychology*. Washington, DC: American Psychological Association.
- Boehm, C. (1999). *Hierarchy in the forest: The evolution of egalitarian behavior*. Cambridge: Harvard University Press.
- Bowles, S. (2009). Did warfare among ancestral hunter-gatherers affect the evolution of human social behaviors? *Science*, 324, 1293-1298.
- Clastres, P. (1972). The Guayaki. In M. G. Bicchieri (ed.), *Hunters and gatherers today* (pp. 138-174). Prospect Heights, IL: Waveland.
- Cooper, J. M. (1946). The Ona. In J. H. Steward (ed.), *Handbook of South American Indians, Volume 1, The Marginal Tribes*, pp. 107-125. Washington DC: United States Printing Office.
- de Waal, F. B. M. (2009). *The age of empathy*. Harmony: New York.
- Dyble, M., et al. (2015). Sex equality can explain the unique social structure of hunter-gatherer bands. *Science*, 348, 796-798.
- Eisler, R. (1988). *The chalice and the blade: Our history, our future*. San Francisco: Harper.
- Eisler, R. (1995). *Sacred pleasure: Sex, myth, and the politics of the body*. New York: Harper Collins.
- Eisler, R., & Fry, D. P. (forthcoming). *Partnership for survival*.
- Endicott, K. L. (1999). Gender relations in hunter-gatherer societies. In R. B. Lee & R. Daly (eds.), *The Cambridge encyclopedia of hunters and gatherers* (pp. 411-418). Cambridge: Cambridge University Press.
- Endicott, K. M. (2014). Guest editorial: Hunter-gatherer aggression and peace. *Journal of Aggression, Conflict, and Peace Research*, 6, 197-202.
- Endicott, K. M., & Endicott, K. L. (2008). The headman was a woman: The gender egalitarian Batek of Malaysia. Long Grove, IL: Waveland.
- Ferguson, R. B. (2011). Born to live: Challenging killer myths. In R. W. Sussman & C. R. Cloninger (Eds.), *Origins of altruism and cooperation* (pp. 249-270). New York: Springer.



- Fry, D. P. (2006). *The human potential for peace: An anthropological challenge to assumptions about war and violence*. New York: Oxford University Press.
- Fry, D. P. (2011). Human nature: The nomadic forager model. In R. W. Sussman & C. R. Cloninger (Eds.), *Origins of altruism and cooperation* (pp. 227-247). New York: Springer.
- Fry, D. P. (2012). Life without war. *Science*, 336, 879-884.
- Fry, D. P., Schober, G., & Björkqvist, K. (2010). Nonkilling as an evolutionary adaptation. In J. Evans Pim (Ed.), *Nonkilling societies* (pp. 101-128). Honolulu: Center for Global Nonkilling.
- Fry, D. P., & Souillac, G. (2013). The relevance of nomadic forager studies to moral foundations theory: Moral education and global ethics in the twenty-first century. *Journal of Moral Education*, 42: 346-359.
- Fry, D. P., & Szala, A. (2013). The evolution of agonism: The triumph of restraint in nonhuman and human primates. In D. P. Fry (Ed.), *War, Peace, and Human Nature* (pp. 451-474). Oxford University Press, New York.
- Fry, D. P., & Söderberg, P. (2013a). Lethal aggression in mobile forager bands and implications for the origins of war. *Science*, 341, 270-273.
- Fry, D. P., & Söderberg, P. (2013b). *Supplementary materials for lethal aggression in mobile forager bands and implications for the origins of war*, available online at: <http://www.sciencemag.org/content/suppl/2013/07/17/341.6143.270.DC1/Fry.SM.pdf> (accessed 15 January 2017).
- Fry, D. P., & Söderberg, P. (2014). Myths about hunter-gatherers redux: Nomadic forager war and peace. *Journal of Aggression, Conflict and Peace Research*, 6, 255-266.
- Fuentes, A. (2004). It's not all sex and violence: Integrated anthropology and the role of cooperation and social complexity in human evolution. *American Anthropologist*, 106, 710-718.
- Gardner, P. (2000). *Bicultural Versatility as a Frontier Adaptation among Paliyan Foragers of South India*. Lewiston, NY: Edwin Mellen Press.
- Gardner, P. (2004) Respect for all: The Paliyans of South India. In G. Kemp & D. P. Fry (eds.), *Keeping the peace: Conflict resolution and peaceful societies around the world* (pp. 53-71). New York: Routledge.
- Gat, A. (2006). *War in Human Civilization*. Oxford University Press, Oxford.
- Guenther, M. (2014). War and peace among Kalahari San. *Journal of Aggression, Conflict and Peace Research*, 6, 229-239.
- Gusinde, M. (1937). *The Yahgan: The life and thought of the water nomads of Cape Horn* (translated by Frieda Schütze). In the electronic Human Relations Area Files, Yahgan, Doc. 1. New Haven, CT: HRAF, 2003, computer file.
- Hart, D., & Sussman, R. W. (2009). *Man the hunted*. Boulder: Westview.
- Headland, T. (1989). Population decline in a Philippine Negrito hunter-gatherer society. *American Journal of Human Biology*, 1, 59-72.

- Hill, K., & Hurtado, A. M. (1996). *Ache life history: The ecology and demography of a foraging people*. New York: Aldine de Gruyter.
- Hill, K., Hurtado, A. M., & Walker, R. S. (2007). High adult mortality among Hiwi hunter-gatherers: Implications for human evolution. *Journal of Human Evolution*, 52, 443-454.
- Holmberg, A. (1969). *Nomads of the long bow: The Siriono of Eastern Bolivia*. New York: American Museum of Natural History. Originally published in 1950.
- Hrdy, S. B. (2009). *Mothers and others: The evolutionary origins of mutual understanding*. Cambridge: Harvard University Press.
- Kelly, R. L. (1995). *The foraging spectrum: Diversity in hunter-gatherer lifeways*. Washington, DC: Smithsonian.
- Knauff, B. (1991). Violence and sociality in human evolution. *Current Anthropology*, 32, 391-428.
- Leacock, E. (1978). Women's status in egalitarian society: Implications for social evolution. *Current Anthropology*, 19, 247-275.
- Leacock, E. (1954). The Montagnais "hunting territory" and the fur trade. *Memoirs of the American Anthropological Association, American Anthropologist*, 56 (2), part 2, memoir number 78.
- Lee, R. B. (1993). *The Dobe Ju/'hoansi* (Second Edition). Fort Worth: Harcourt Brace College Publishers.
- Lee, R. B. (2014). Hunter-gatherers on the best-seller list: Steven Pinker and the 'bellicose school's' treatment of forager violence. *Journal of Aggression, Conflict, and Peace Research*, 6, 216-228.
- Lee, R. B., & DeVore, I. (1968) Problems in the study of hunters and gatherers. In R. B. Lee & I. DeVore (eds.), *Man the hunter* (pp. 3-12). Chicago: Aldine.
- Lips, J. E. (1947). Naskapi Law. *Transactions of the American Philosophical Society*, n.s., 37, 379-492.
- Marlowe, F. (2010). *The Hadza hunter-gatherers of Tanzania*. Berkeley: University of California Press.
- Marshall, J. (2009). The meat fight. *!Kung short films (1961-1974)*, disk 2. Watertown, MA: Documentary Educational Resources.
- Mayr, E. (1961) Cause and effect in biology. *Science*, 134, 1501-1506.
- Meggitt, M. (1965). *Desert people: A study of the Walbiri Aborigines of Central Australia*. Chicago: University of Chicago Press.
- Myers, F. (1982). Always ask: Resource use and land ownership among Pintupi Aborigines of the Australian Western Desert. In N. M. Williams & E. S. Hunn (eds.), *Resource managers: North American and Australian hunter-gatherers* (pp. 173-195). Boulder, CO: Westview.
- Nowak, M. A. (2011). *SuperCooperators: Altruism, evolution, and why we need each other to succeed* (with R. Highfield). New York: Free Press.
- Osgood, C. (1958) *Ingalik Social Culture*. New Haven: Yale University Publications in Anthropology, number 53.
- Pinker, S. (2011). *The better angels of our nature*. New York: Viking.

- Sahlins, M. (2008). *The Western illusion of human nature*. Chicago: Prickly Paradigm Press.
- Service, E. R. (1966). *The hunters*. Englewood Cliffs, NJ: Prentice-Hall.
- Service, E. R. (1971). *Primitive Social Organization: An Evolutionary Perspective*, second edition. New York: Random House.
- Souillac, G. (2012). *A study in transborder ethics*. Brussels: Lang.
- Souillac, G., & Fry, D. P. (2016). Anthropology: Implications for peace. In O. P. Richmond, S. Pogodda, & J. Ramović (eds.), *The Palgrave handbook of disciplinary and regional approaches to peace*. New York: Palgrave Macmillan.
- Sussman, R. W., & Cloninger, C. R. (Eds.) (2011). *Origins of altruism and cooperation*. New York: Springer.
- Söderberg, P., & Fry, D. P. (2017). Anthropological aspects of ostracism. In K. D. Williams, & S. A. Nida (eds.), *Ostracism, Exclusion, and Rejection* (pp. 258 - 272). New York: Routledge.
- Tonkinson, R. (1978). *The Mardudjara Aborigines: Living the dream in Australia's desert*. New York: Holt, Rinehart, & Winston.
- Tonkinson, R. (2004) Resolving conflict within the law: The Mardu Aborigines of Australia. In G. Kemp, & D. P. Fry (eds.), *Keeping the peace: Conflict resolution and peaceful societies around the world* (pp. 89-104). New York: Routledge.
- Tonkinson, R. (2013). Social control and conflict management among Australian Aboriginal desert people before and after the advent of alcohol (pp. 262-277). In D. P. Fry (ed.), *War, Peace, and Human Nature*. New York: Oxford University Press.
- Turnbull, C. M. (1961). *The forest people: A study of the Pygmies of the Congo*. New York: Simon & Schuster.
- Turnbull, C. M. (1965). *Wayward servants: The two worlds of the African Pygmies*. Garden City, NY: The Natural History Press.
- Verbeek, P. (2008). Peace ethology. *Behaviour*, 145, 1497-1524.
- White, D. R. (1989). Focused ethnographic bibliography: Standard cross-cultural sample. *Behavior Science Research*, 23, 1-145.
- Wolf, E. (2001). Cycles of violence: The anthropology of war and peace. In D. P. Barash (ed.), *Understanding violence* (pp. 192-199). Boston: Allyn and Bacon.
- Woodburn, J. (1982). Egalitarian societies. *Man*, 17, 431-451.
- Wrangham, R., & Peterson, D. (1996). *Demonic males: Apes and the origin of human violence*. Boston: Houghton Mifflin.
- Wrangham, R., & Glowacki, L. (2012). Intergroup aggression in chimpanzees and war in nomadic hunter-gatherers. *Human Nature*, 23, 5-29.

Douglas P. Fry, PhD, and Geneviève Souillac, PhD, are Professor and Chair and Visiting Associate Professor, respectively, in the Department of Anthropology at the University of Alabama at Birmingham in Birmingham, Alabama.

Correspondence about this article should be addressed to Dr. Douglas P. Fry at [dfry@uab.edu](mailto:dfry@uab.edu) or Dr. Geneviève Souillac at [souillac@uab.edu](mailto:souillac@uab.edu)